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AN ANALYSIS OF POSSIBLE OCCUPATIONS
FOR MENTALLY RETARDED YOUTH

A Thesis
Presented to
the Graduate Faculty
Central Washington College of Education

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Robert William Steadman
May 1958

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UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF THE ASSISTANT SECRETARY

Washington, D. C.

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Robert William Steadman

May 1958

APPROVED FOR THE GRADUATE FACULTY

Loretta M. Miller, COMMITTEE CHAIRMAN

Eldon E. Jacobsen

George L. Sogge

DEDICATION

To the Author's Children: Robby
Janet
Cathy
Carol

ACKNOWLEDGMENTS

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

I. THE PROBLEM AND METHOD

Statement of the Problem

The problem of employment of the mentally retarded has been recognized for a long time. In the early part of the twentieth century, institutions were built by states for the purpose of training these youth for vocations. These institutions, however, became residences for the mentally handicapped and thus lost their primary objective.¹

Recently a renewed interest has developed and many public schools now provide Special Classes for the mentally handicapped.² The aim of these classes is to help the handicapped to become socially adept and capable of satisfactory adjustment in a working society. In this connection, the author has attempted to present occupational information

¹Samuel A. Kirk, "Vocational Rehabilitation in Educator's Critique on Past, Present, and Future Programs," Vocational Training and Rehabilitation of Exceptional Children (Langhorne: The Woods Schools, 1957), p. 27.

²Ibid.

that will be of concrete assistance to guidance personnel.

The purpose of this study was to list occupations that might be suitable to youth of low intelligence and to show the necessary competencies for success in these jobs.

Importance of the Study

Retarded young people will not be able to perform the physical and mental tasks required in many occupations. They should have specific experiences and they should learn the necessary related information so that they will be able to use the skills they have to the greatest advantage. These youth, because of their defects, need guidance in choosing an occupation. They need to be aware of what is available to them, what the duties are, and what the opportunities for advancement are.³

This study will attempt to show the qualities the individual should have and it will list some of the possible jobs available to him. It will aid the guidance personnel in supplying information to both the prospective employer and the prospective employee. Engle emphasized the need for more study in this field when she wrote,

³U. S. Department of Health, Education and Welfare, Curriculum Adjustments for the Mentally Retarded, No. 2 (Washington, D. C.: Government Printing Office, 1957).

"Unfortunately, there is a great need for job analysis of low level occupations."⁴

Through the information provided in this thesis, the community and the individual should be able to find mutual benefit. An employed person, self-supporting and content in his job, is a happy individual. It is unlikely that he will get into trouble and he will find it easy to get along with people if he feels that he is one of the group, a worker. The community does not have to pay to keep the person in an institution or provide unemployment compensation if he is employed. Instead, the working person pays taxes and contributes to the community.⁵

Limits of the Study

It was the purpose of this study (1) to find some of the jobs available to retarded youth in the Seattle, Washington, area; (2) to analyze these jobs with respect to (a) the mental abilities of the youth considered for the job and (b) the requirements of the job; (3) to discover the habits that are most desirable in order to keep

⁴Anna M. Engle, "Employment of the Mentally Retarded," American Journal of Mental Deficiency, 57:259-260, October, 1952.

⁵Arthur S. Hill, "The Severely Retarded Child Goes to School," The Forward Look, U. S. Department of Health, Education, and Welfare, No. 11 (Washington, D. C.: Government Printing Office, 1952).

a job; and (4) to present the material in such a manner that it will be of concrete help to guidance personnel. In spite of a lack of available research material on the employment of mentally retarded youth in the Seattle area and a lack of follow-up studies of individuals with low I.Q.'s, an attempt has been made to meet the aims given above. Research concerning jobs in modern industry suitable for the mentally retarded is needed.⁶

Engle, writing on job placement, made the point that ". . . various types of occupational services must not only be known, but must be evaluated in terms of the applicant's possibilities."⁷ She also reports that ". . . industry is as much concerned with the worker's personal adjustment as with the work he can do."⁸

Philosophy of the Project

There is much that may be done for the mentally handicapped through proper guidance and special education. Given this guidance, the individual may be aided to "steer his own course" on the expected cultural plane.⁹ Yepsen

⁶Kirk, op. cit., p. 33.

⁷Engle, op. cit., p. 260.

⁸Ibid.

⁹R. H. Hungerford, C. J. DeProspero, and L. E. Rosenweig, "Education of the Mentally Handicapped in Childhood and Adolescence," American Journal of Mental Deficiency, 57:217, October, 1952.

tells us that, through guidance, these youth can be ". . . prepared for life . . ." and can be given ". . .adequate vocational training . . ." ¹⁰.

The problems of the mentally retarded are being considered by many individuals and groups. This growing concern for the mentally handicapped is most encouraging but, as yet, falls short of all that is needed. It is hoped that this study will aid the guidance counselor in finding suitable employment for those who are unable to help themselves. If the tables are used as a guide only, this project should be of assistance.

II. DEFINITION OF TERMS USED

In April, 1954, The World Health Organization meeting stressed in its report the fact that in few fields of knowledge is there more confusion in terminology than in the area of mental defect. ¹¹ For the purpose of this study the author has chosen to use Good's Dictionary of Education

¹⁰Lloyd N. Yepson, "Counseling the Mentally Retarded," American Journal of Mental Deficiency, 57:206, October, 1952.

¹¹Malcolm J. Farrell, Catherine E. Chipman, and Mildred F. Brazier, "Training and Education of the Mentally Retarded," Special Education for the Exceptional, Merle E. Frampton and Elena D. Gall (eds.), Mental and Emotional Deviates and Special Problems (Boston: Porter and Sargent, 1956), 3:467.

with qualifying or explanatory remarks from other authors.¹²

Mental Defect

"Any lack of mental function as compared with the norm."¹³

Mental Defective

"A term often used euphemistically to designate a feeble-minded individual."¹⁴

Mental Defective, Certifiable

"(1) A medico legal term applied to a person who has been diagnosed by a fully certified psychologist or psychiatrist and declared a mental defective; (2) a person committable by a court to an institution for mental defectives."¹⁵

Mental Deficiency

"An innate or acquired condition of mind characterized by low intelligence and limited mental development, associated with serious social and economic inadequacy, lack

¹²Carter V. Good, Dictionary of Education (New York: McGraw-Hill Book Company, 1945).

¹³Ibid.

¹⁴Ibid.

¹⁵Ibid.

of ability to learn, and inability to compete with normal persons."¹⁶ Sometimes this term is used to cover all grades of mental defect.

Mentally Deficient

Mentally deficient is an inclusive term to describe those people who fall in the low classes of mental ability. The idiot is the lowest group with an I.Q. of from 0 to 25. Following him up the scale is the imbecile with an I.Q. of from 25 to 50. The mildest form of the mentally deficient is the moron with an I.Q. of from 51 to 75.¹⁷

Mentally Retarded

A term used to describe one who is subject to a mild degree of mental backwardness or dullness produced by physical defects or by an arrested or reduced rate of development.¹⁸

Feeble-mindedness

"(1) In the United States, a generic term to

¹⁶Ibid.

¹⁷James C. Coleman, Abnormal Psychology and Modern Life (second edition; Chicago: Scott, Foresman and Company, 1956), p. 495.

¹⁸Good, op. cit.

designate the condition, from early life, of a person so defective in intelligence or general ability that he requires care and supervision for his own protection and for the protection of others."¹⁹ It includes the three grades; idiocy, imbecility, and moronity.

Slow Learner

Above 75 I.Q. to 90, individuals are considered within the range of normal. They test slightly below average in learning ability but are not mentally handicapped. Their difficulty is lack of ability, through constitutional causes, or environmental.²⁰

Special Education

"The education of pupils . . . who deviate so far physically, mentally, or socially from the relatively homogeneous groups of so-called 'normal' pupils that the standard curriculum is not suitable for their educational needs; involves the modification of the standard curriculum in content, method of instruction, and expected rate of progress to provide optimum educational opportunity for

¹⁹Ibid.

²⁰Samuel A. Kirk and G. Orville Johnson, Educating the Retarded Child (New York: Houghton-Mifflin Company, 1951), p. 12.

such pupils."²¹

Mentally deficient, feeble-minded, retarded, and slow-learning, are terms used to describe the child of low I.Q. These terms are often used interchangeably whether correct or not.²² A more recent trend in terminology is discussed in Chapter II.

III. THE METHOD

In Chapter III, tables are presented which list the types of jobs available and suitable for some mentally handicapped individuals. The tables also list some of the competencies needed by individuals to succeed in these jobs.

The process of forming the tables in Chapter III began with the selection of job titles from the Dictionary of Occupational Titles, which lists jobs by code numbers. Then references were made to the fourteen volumes of Job Descriptions. Each volume in this series describes the jobs in a particular industry. For example, the volume titled Job Descriptions for the Confectionery Industry lists the jobs and describes the work that is done in that

²¹Good, op. cit.

²²Hill, op. cit.

job. From these volumes and definitions, the author selected only the jobs which were comparable to jobs named in other studies and jobs that, by definition, could be classified as suitable for mentally retarded workers. These jobs are primarily unskilled and semi-skilled.

The minimum age suitable for a given job was determined by comparing job titles of the volumes of Job Descriptions and job titles and I.Q.'s or mental ages from the following studies as reported by Engle²³:

1. A study, conducted in 1939, by Beckham, which listed a number of jobs by minimum mental ages. This study listed only the job titles and the mental ages.
2. A study, conducted in New York, in 1948, which listed jobs as dependent, unskilled, and semiskilled.
3. A study, conducted in 1939, by Rynbrandt in Grand Rapids, Michigan, which listed jobs by I.Q.
4. A follow-up study, conducted in 1936, in Detroit, which listed the jobs that graduates of a Special Class had held.

Included in the tables are the various personal traits and skills listed for each job. These were taken from a recent U. S. Government publication.²⁴

²³Engle, op. cit., pp. 254-263.

²⁴United States Employment Service, Estimates of Worker Trait Requirements For 4,000 Jobs as Defined in the Dictionary of Occupational Titles (United States Department of Labor, Washington, D. C.: Government Printing Office, 1957).

IV. SUMMARY OF CHAPTER I

The material presented in Chapter I consists of the problem and the purpose of this study. It suggests that a study of this type was long overdue. Various authors have expressed a need for more studies directly concerned with the employment of the mentally handicapped. This study will satisfy a portion of this need.

CHAPTER II

REVIEW OF THE LITERATURE

The literature concerning the mentally handicapped, as reviewed in this chapter, falls into three groups. The first group pertains to the general characteristics of the mentally retarded; the second group concerns the role of the community in dealing with mentally handicapped youth; and the third group includes writings on the employment of these youth.

I. GENERAL CHARACTERISTICS OF THE MENTALLY RETARDED

It was the purpose of this study to assist in the employment of the mentally handicapped. With this goal in mind, it was paramount that some understanding of the background and problems encountered in the overall human development be established. To emphasize this point, one speaker stated that:

In 1944, a study was made in New York City. This report showed that character traits and personal habits were more important in the prognosis for vocational success than mechanical ability.¹

¹Chris J. DeProspero, "The Problem of Evaluation," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 25.

Mental ability in terms of I.Q. is not sufficient criteria for satisfactory job placement. There is a variety of other things that the employer and the counselor should consider before an attempt is made to place an individual. If an employer is thinking of hiring a mentally deficient person, he should know something about his general characteristics. The counselor should also be familiar with these characteristics in order to assist the individual adequately. The remainder of section I of this chapter attempts to explain some of the ways in which the mentally retarded deviate from the normal or, in some instances, approach the norm for normal youth.

Medical Etiology

Jervis tells us that medically, the etiology of mental defect can be broken into two large groups.² Defects in the first group are caused by environmental factors; in the second group largely by genetical functions. The following is an outline that shows all of the factors included in the two groups:

- A. Exogenous mental defect
 - 1. Due to infection
 - a. Intrauterine (syphilis, rubella, toxoplasmosis, etc.)
 - b. Postnatal (various forms of encephalitis in infancy and childhood.)

²George A. Jervis, "Medical Aspects of Mental Deficiency," American Journal of Mental Deficiency, 57:176, October, 1952.

2. Due to trauma
 - a. Birth trauma
 - b. Prenatal trauma
 - c. Postnatal trauma
 3. Due to toxic agents
 - a. Chemical agents - accidental poisoning
 - b. Physical agents (X-ray)
 - c. Incompatible blood factors (Rh-A-B factors)
 - d. Undetermined toxic factors - Mongolism
 4. Due to endocrine disorders
 - a. of the thyroid gland
 - b. of the pituitary gland
 - c. of the sexual glands
 5. Due to emotional factors of deprivation
Pseudo-feedleminedness
- B. Endogenous mental defect
1. Due to multiple genes. Undifferentiated or acinical mental defect
 2. Due to single dominant gene
 - a. Tubero-sclerosis
 - b. Neurofibromatiosis
 - c. Nevroid idiocy
 - d. Various dysotoses
 3. Due to single recessive gene
 - a. Amaurotic idiocies
 - b. Gargoylism
 - c. Phenylpyruvic idiocy
 - d. Primary microcephaly
 - e. Wilson's disease
 - f. Cerebellar atrophies (some forms)
 - g. Diffuse scleroses (some forms)
 - h. Muscular atrophies (some forms)
 4. Due to undetermined genetic mechanisms
 - a. Idiopathic epilepsy with mental defect
 - b. Malformations of the nervous system.³

Educational Terms

The education field shows four general areas of low

³Ibid.

I.Q. These groups can be broken down into finer divisions but, for the purpose of this study, an understanding of the four will be sufficient. These are educational and psychological terms and should not be confused with the preceding outline of medical etiology.

Idiot: This is the most severe grade of mental deficiency. Individuals with an I.Q. between 0 and 25 are classed as idiots. These individuals are unable to perform even simple tasks. Sensory and motor handicaps are common to this group. Useful speech is uncommon.⁴

Imbecile: The I.Q.'s of this group range from 26 to 50. These people may develop social maturity of from four to nine years mental age. It is not likely that they will gain much useful training from regular school attendance. It is possible that they may learn simple tasks and work under sheltered conditions.⁵

Moron: This is the highest level of mental deficiency. The I.Q.'s of this group range from 51 to 70. It is possible for this group to become socially adjusted in normal social environments. They can profit from elementary training and can reach a maximum of fourth or

⁴James C. Coleman, Abnormal Psychology and Modern Life (Chicago: Scott, Foresman, & Company, 1956), p. 495.

⁵Ibid.

fifth grade in school achievement. This group can perform simple repetitive jobs in industry.⁶

Borderline or Dull Normal: In terms of I.Q., individuals in this group usually range from 75 to 89. They are not capable of reaching the standards set in regular class work but are more able than the moron. If given some consideration for their handicap it is possible for them to succeed, to some degree, in a regular classroom.⁷

The terms idiot, imbecile, and moron, are being severely criticized by some professional people. As a result, the first two groups are being combined to form "the severely deficient." "Moderate deficiency" is being used for vocational impairment requiring special training. The term "mild deficiency" is being used to describe the borderline I.Q. of from 70 to 85.⁸

The following table, as extracted in part from Stevens and Erdman, summarizes the various American terms used during the past century:

⁶Ibid.

⁷Christine P. Ingram, Education of the Slow Learning Child (New York: The Ronald Press Co., 1953), p. 7.

⁸Harvey A. Stevens and Robert L. Erdman, "Education of the Mentally Retarded Child," Special Education for the Exceptional, Merle E. Frampton and Elena D. Gall (eds.), Mental and Emotional Deviates and Special Problems (Boston: Porter and Sargent, 1956), 3:436.

<u>Approximate Intelligence Level</u>		<u>American Current (1955)</u>	<u>American Education</u>	<u>American (Old)</u>
<u>I.Q.</u>	<u>Mental Level Adult</u>			
50-75 (70)*	6-12 yrs.	Mild	Educable	Moron/Low
25-50 (20)*	3-8 yrs.	Moderate	Trainable	Imbecile/ Middle
0-25 (20)*	0-4 yrs.	Severe	Totally Dependent	Idiot/High
ALL GROUPS		Mentally Deficient	Mentally Retarded or Mentally Handicapped	Feeble- minded

* - Used prior to 1955⁹

Personality

The personality of mentally retarded children is dependent on the same factors as those for normal children. There are, however, many special ways in which the characteristics of the mentally retarded differ from those of normal children. For example, there is an average of two physical additional defects per pupil, (teeth, tonsils, adenoids, etc.)¹⁰

⁹Ibid.

¹⁰Harry J. Baker, Introduction to Exceptional Children (New York: The Macmillan Company, 1953), p. 12.

Mental characteristics show many features unique to the mentally retarded. Baker says:

They show a tendency to stereotype answers. . . they lack powers of self-criticism; their powers of association are limited; they are unable to keep unusual instructions in mind . . . they tend to have concrete abilities rather than abstract; they have limited powers of reasoning¹¹

Intellectual Capacity

In her book on Exceptional Children, Goodenough speaks of the three groups of mental deficient; idiot, imbecile, and moron:

There is no sharp separation between these classes. In the final analysis, the assignment of a child to one or the other must depend upon the level of behavior at which he actually functions.¹²

It is not difficult to see that in determining intellectual level, personality, adjustment, and training are vital factors to consider.¹³ The development of skills are usually achieved through repetition.

Frampton reports:

. . .the meager knowledge of academic subjects sometimes gained is mechanical, with little or no understanding of processes involved or ability to

¹¹Ibid.

¹²Florence L. Goodenough, Exceptional Children (New York: Appleton-Century-Crofts, Inc., 1956), p. 184.

¹³Ibid.

transfer learned skills to another field.¹⁴

Performance Ability

In comparing I.Q.'s from the Stanford-Binet Scale and the Cornell-Coxe Performance Ability Scale, Ingram reports:

. . . test returns consistently showed, at all ages and I.Q. levels, better performance on the average in tasks calling for planfulness, motor coordination, motor control, and ability to deal with concrete rather than verbal problems.¹⁵

The maximum I. Q. of the group studied (above) was 79.

Social Age

Garrison, reporting on several tests that indicate social age claims that there is "a high degree of correlation between social competence and intelligence level, and at the same time important exceptions."¹⁶ He points out that Morales found that idiots (M.A. 0-3.3) had a social age of .24 to .36.¹⁷ Garrison goes on to say that

¹⁴Malcolm J. Farrell, Catherine E. Chipman, and Mildred F. Brazier, "Training and Education of the Mentally Retarded," Special Education for the Exceptional, Merle E. Frampton and Elena D. Gall (eds.), Mental and Emotional Deviates and Special Problems (Boston: Porter Sargent, 1956), 3:414.

¹⁵Christine P. Ingram, Education of the Slow Learning Child (New York: The Ronald Press Co., 1953), p. 15.

¹⁶Karl C. Garrison, The Psychology of Exceptional Children (New York: The Ronald Press Co., 1950), p. 122.

¹⁷Ibid.

Doll, reporting on the social age of morons (M.A. 8 to 12), found that this higher group showed a markedly better social relationship (S.A. 9 to 18).¹⁸

Emotion

The mentally defective has much in common with the normal person in his behavioral patterns.¹⁹ However, the mentally retarded often have feelings of isolation from their families, peers, and schools. This is the most common psychological problem encountered by these youth.²⁰

According to Garrison, "Fear reactions dominate the personality of a number of children" ²¹ Often they are over- or under-protected in the home and the majority of their school experiences are unfavorable. He lists maladjustments of 100 mentally handicapped youth studied by Gates as follows:

1. Nervous tensions and habits such as stuttering, nail-biting, restlessness, insomnia, and pathological illnesses - 10 cases.
2. Putting up a bold front as a defense reaction, loud talk, defiant conduct, sullenness - 16 cases.

¹⁸Ibid.

¹⁹Farrell, Chipman, and Brazier, op. cit., p. 470.

²⁰Ibid.

²¹Garrison, op. cit., pp. 161-162.

3. Retreat reactions, such as withdrawal from ordinary associations, joining outside gangs, and truancy - 14 cases.
4. Counterattack, such as making mischief in school, playing practical jokes, thefts, destructiveness, cruelty, bullying - 18 cases.
5. Withdrawing reactions, including mind wandering and day dreaming - 26 cases.
6. Extreme self-consciousness, such as becoming easily offended, blushing, developing peculiar fads, and frills and eccentricities, inferiority feelings - 35 cases.
7. Give-up or submissive adjustments, as shown by inattentiveness, indifference, apparent laziness - 33 cases.²²

Tabor says:

The handicapped child is often insecure, and in need of individual help before he can relax with his classmates. . . . Contrary to commonly held opinion, retarded children do have emotional problems.²³ They are not immune to tensions and uncertainties.²⁵

Other Problems

Other studies have shown that the mentally retarded are not capable of managing their own affairs, their lives, nor their conduct.²⁴ They must, as a result, depend more

²²Ibid., p. 184.

²³Robert C. Tabor, "The Responsibilities of the Public Schools for the Retarded Pre-Adolescent Child," The Pre-Adolescent Exceptional Child (Langhorne: The Woods Schools, May, 1953), p. 51.

²⁴Florence L. Goodenough, Exceptional Children (New York: Appleton-Century-Crofts, Inc., 1956), p. 247.

upon the guidance of others.²⁵ They may know that stealing is wrong, but because they are easily influenced, they may be persuaded to stand guard while someone else steals; they see no harm in doing this.²⁶

Ingram reports a Massachusetts study to determine the need for social supervision of graduates from Special Classes.²⁷ It should be observed that the delinquency record of these youth is not high. This fact is emphasized when it is discovered that 3.3 per cent are of institutional level and should not have been in the public schools, also that 42.2 per cent do not need supervision. The following information is taken from the social adjustment section of Ingram's table:

Social Adjustment²⁸

	Per Cent
No delinquent record	82
Delinquent record.	18
Time spent profitably--regular hours, no street loitering, moderate attendance at movies, no "gang" associations, etc. . .	80
Time spent unprofitably.	20

²⁵Ibid.

²⁶Karl C. Garrison, The Psychology of Exceptional Children (New York: The Ronald Press Company, 1950), p. 187.

²⁷Christine P. Ingram, Education of the Slow Learning Child (New York: The Ronald Press Company, 1953), pp. 50-51.

²⁸Ibid., p. 51.

Homes effective in adjustment	76
Homes not effective in adjustment	24

Some of the mentally handicapped are afflicted with speech defects. Goodenough says, "The defective child whose speech habits are poor is doubly disadvantaged, for his defective speech tends to call attention to his intellectual deficiencies."²⁹ According to Ingram, "Speech defects occur among about 4.5 per cent (C.A. 13-16) compared with 15 to 18 per cent at earlier years."³⁰

II. THE ROLE OF THE COMMUNITY

The community affects the lives of all of us. The life of the youth with limited mental ability is also influenced by what the community provides for him. In the following discussion, the role of certain facilities are mentioned briefly as they affect the lives of the mentally handicapped.

The community is a strong force in the development of the mentally handicapped youth. Any activity developed by the community will be dependent, in part, on the size of the community, its attitude and understanding. The

²⁹Goodenough, op. cit., p. 247.

³⁰Ingram, op. cit., p. 25.

following paragraphs present some of the facilities which the community can help to develop:

Diagnostic Centers

The community, if it is able, should provide a diagnostic center where parents may take their mentally retarded children without fear of high cost; a place where the children and the parents may receive help from trained medical doctors, psychologists, and guidance counselors.³¹

Sheltered Workshops

Parent organizations, schools, Lions Clubs, and other groups have promoted workshops. These workshops should be geared to the needs of the mentally retarded. They should provide training in work that is interesting and will be within their abilities.³² These workshops give the handicapped an opportunity to earn money. Probably the best known sheltered workshop is the Lighthouse for the Blind.

Padel, speaking before a conference sponsored by

³¹Harvey A. Stevens and Robert L. Erdman, "Education of the Mentally Retarded Child," Special Education for the Exceptional, Merle E. Frampton and Elena D. Gall (eds.) Mental and Emotional Deviates and Special Problems (Boston: Porter Sargent, 1956), 3:451.

³²W. E. Padel, "Practical Problems of Placement from the Viewpoint of the Parent," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 61.

the Woods Schools, said:

The problem at this point is lack of sheltered workshops. One of the greatest gaps in community services is a sheltered workshop, geared to the needs of the mentally retarded. . . .³³

Garrett, in a discussion concerning community resources said, "It is now almost axiomatic that no rehabilitation program is stronger than the facilities and resources of the community in which it is found."³⁴

Recreational Programs

The purpose of recreation centers for the mentally handicapped should be that of socialization. Many recreation centers for these youth sponsor programs of camping, Boy or Girl Scout troops, craft programs, sports activities, and other interesting activities.³⁵

Employment Agencies

Most studies indicate that these youth will work in unskilled or semiskilled jobs. These agencies should be able to give counsel to the mentally retarded and to their

³³Ibid.

³⁴James F. Garrett, "Occupational Adjustment," The Exceptional Child Faces Adulthood (Langhorne: The Woods Schools, May, 1955), p. 71.

³⁵Stevens and Erdman, op. cit., p. 452.

parents, if necessary. Most schools are not equipped to handle employment problems. Therefore, other agencies, such as the United States Employment Security Department and the state employment agencies will have to assume responsibility.

It is the job of the placement agency to let the prospective employer know and help him to understand the problems of handicapped youth. He must also know the maximum and the minimum of the handicapped youth's capacities and capabilities.³⁶ The employer should also be educated as to the meaning of retardation.

Parent Organizations

The national and local organizations of parents work to create good mental health for the parents and the children, public understanding of the problems, and legislation at the federal, state, and local level.³⁷

DiMichael said:

. . . case histories and biographies of parents show that parental disappointments, frustrations, ambivalent feelings of love and hate, confusions over the

³⁶J. Clifford MacDonald, "Practical Problems of Placement from the Viewpoint of Business and Industry," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 63.

³⁷Stevens and Erdman, op. cit., p. 452.

meaning of retardation and pressures upon the child are fairly prevalent.³⁸

Through the work of organizations of parents and counseling agencies, the parents can be brought to a better understanding of the problems that face them.³⁹ They must accept the mentally retarded person as he is, not as they would like him to be. They must face his limitations and help him to plan for his future in terms of his possibilities. Unless the handicapped individual is accepted by his parents for what he is, more than likely he will not be happy and the chance of being successful on the job will be lessened.

Papish says that the parents feel that:

. . . Professionals should be honest with parents and tell them as soon as possible that the child is mentally retarded; . . .

Second, it was felt that valid tests of the whole personality should be developed for lower retardates which would include emotional adjustments, physical growth and development.

Third, it was the general opinion that there is a

³⁸Salvatore G. DiMichael, "The Problem of Post Adolescence," The Exceptional Child Faces Adulthood (Langhorne: The Woods Schools, May, 1955), p. 30.

³⁹Lee J. Marino, "Planning for Adjustment from the Viewpoint of the Parent," The Exceptional Child Faces Adulthood (Langhorne: The Woods Schools, May, 1955), p. 77.

need for new terminology, which will consider the child as a child and not as a clinical type . . .

Fourth, we parents expect of scientists in the field programs of continuous research until the answers to the perplexing questions of mental retardation⁴⁰ are found, and the horizon of hope is broadened.

Papish goes on to say that the ultimate goal of the parents is that the mentally retarded child should have ". . . a place of dignity in human society. . . ."⁴¹

Public Schools

The school, as an established agency of the community, has certain responsibilities. The following paragraphs will explain, briefly, some of these responsibilities.

One of the many purposes for maintaining Special Classes for mentally retarded children is to give those pupils who cannot profit from the general educational program an opportunity to develop independence and vocational competence. The Special Education Program can help the individual develop personality traits essential for holding down a job. It can also aid in the necessary

⁴⁰Martin F. Papish, "Understanding the Needs and Desires of the Parents of the Retarded Child," The Pre-Adolescent Exceptional Child (Langhorne: The Woods Schools, May, 1953), pp. 53-54.

⁴¹Ibid., p. 54.

development of personal skills, manual dexterity, and information about possible jobs.

Desirable social skills, work habits, and personality development are among the best types of training the school can give.⁴² Each individual needs to know how to keep clean, how to be courteous and punctual. He needs to cooperate with fellow workers. He should know the basic laws related to his work and the laws of the community in which he lives.

The education of these youth varies according to the ability of the community to provide facilities for them. In some areas they attend regular classes, Special classes in a regular school, classes in a Special School, or classes in a Special Center.

Special Class. Many educators claim that the needs of subnormal youth can be best met in a Special Class. The Special Class is located in a regular school. These classes have been organized in ~~two~~ ways: (1) The Special Class teacher is directly responsible to a supervisor and the principal of the school has little authority in the program.

⁴²Max L. Hutt and Robert Gwyn Gibby, The Mentally Retarded Child: Development, Education and Guidance (Boston: Allyn and Bacon, Inc., 1958), p. 283.

(2) The Special Class is part of the regular school.⁴³

Special School. The Special School for children of low I.Q. brings children with similar problems together. Here the children can be placed in a class with others of similar abilities. This provides for greater flexibility of grouping.⁴⁴

Special center. The trend in modern education is to turn toward this type of organization. The center has four or more classes in a regular school. The children participate in many of the regular school activities. There is much free contact between the two sections.⁴⁵

To emphasize the increasing trend of school districts all over the nation toward Special Education classes, Voelker states that:

There were 113,565 children in Special Classes maintained by 1,224 school districts in 1952-53 compared to 87,000 children in 714 districts in 1947-48.⁴⁶

⁴³Arch O. Heck, The Education of Exceptional Children (second edition; New York: McGraw-Hill Book Company, 1953), p. 336.

⁴⁴Ibid.

⁴⁵Ibid.

⁴⁶Paul H. Voelker, "The Public School System," Vocational Training and Rehabilitation of Exceptional Children (Langhorne: The Woods Schools, May, 1957), p. 92.

Voelker also said that courses that are "watered down" from the regular schools have proved to be inadequate.

Educational aims. In general, the aims of Education for the mentally retarded do not differ from those of the normal. The principle objectives are to develop in them achievements in general knowledge, in occupational knowledge, in occupational life, in social relations, and in leisure time.⁴⁷

Some authors feel that the program for the mentally retarded should be based on achievement in vocational and social competence. This program is called Occupational Education. The aims are to promote (1) occupational information; to give the mentally handicapped an understanding of the jobs available to him, (2) vocational guidance; to help him to understand his own abilities, (3) vocational training; training in manual skills and other skills needed for the job, (4) vocational placement; actually placing the individual on the job, and (5) social placement; adjusting the individual to the actual job and to society.⁴⁸

⁴⁷Elsie E. Marten, Curriculum Adjustments for the Mentally Retarded, Office of Education, U. S. Department of Health, Education, and Welfare, Bulletin No. 2 (Washington, D. C.: Government Printing Office, 1950), p. 9.

⁴⁸Richard H. Hungerford, Chris J. DeProspero, and Louis E. Rosenzweig, "Education of the Mentally Handicapped in Childhood and Adolescence," American Journal of Mental Deficiency, 57:221, October, 1952.

Methods of instruction. Training of the mentally retarded should begin at the individual's own level of accomplishment. The program should be broad and planned to meet the demands of adulthood.⁴⁹ The object of Special Education is to have ". . . short range goals that are functional and feasible so that the individual may acquire the feeling of worth-while accomplishment in putting them to use," according to Fouracre.⁵⁰

The training should be both broad and specific. The training should teach them the meaning of work, the types of jobs available to them, how to look for a job, how to apply for a job, and what is to be expected of them in order to hold a job.⁵¹

Fouracre says that the curriculum should be based on the following three areas:

1. Area of home and family life.
2. Area of interpersonal relationships.
3. Area of occupational training.⁵²

⁴⁹Robert C. Tabor, "The Responsibilities of the Public Schools for the Retarded Child," The Pre-Adolescent Exceptional Child (Langhorne: The Woods Schools, May, 1953), p. 52.

⁵⁰Maurice H. Fouracre, "Adjusting the Exceptional Adolescent to Adult Life," The Exceptional Child Faces Adulthood (Langhorne: The Woods Schools, May, 1955), p. 20.

⁵¹Ibid., p. 17.

⁵²Ibid., p. 16.

DeProspero came to the conclusion that

. . .a truly dynamic and sustaining program of special education must accept the responsibility of following up purposeful school training with successful job placement. Job⁵³placement is the final payment of special education.

DeProspero gives the following curriculum overview from primary to senior high school level:

Pupils	Curricular Core	Goals
Primary C.A. 7-9 (10)	The Home	Right habits, health, safety, manners, muscular coordination, basic readiness program in academic skills.
Intermediate C.A. 10-12 (13)	The Larger Community	Same as above and general shop skills.
Junior High C.A. 13-15 (16)	The World of Work	Occupational survey, vocational guidance, manual and non-manual job skills.
Senior High C.A. 16- Graduation	The Worker as a Citizen	Budgeting, recreation, social skills for occupational and community adjustment. ⁵⁴

It should be observed that the total program emphasizes

⁵³Chris J. DeProspero, "The Problem of Evaluation," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 59.

⁵⁴Chris J. DeProspero, "Curriculum for the Mentally Handicapped," Special Education for the Exceptional, Merle E. Frampton and Elena D. Gall (eds.), Mental and Emotional Deviates and Special Problems (Boston: Porter Sargent, 1956), 3:482.

social and economic skill development.⁵⁵

Guidance and counseling. "The services of the school counselor," according to Tabor, "are essential in any educational program for retarded youth. . . ."⁵⁶ The counseling program for the retarded youth depends a great deal upon the active participation of the counselor. The counselor's position is not a desk job but should be one of combining field work and advisement. The counselor needs to be in close contact with employers in order to know their wants and beliefs. In addition to knowing the employer, the counselor has a responsibility to the employee. He should be aware of the capabilities of the mentally retarded and their interests.⁵⁷ When the counselor approaches the employer about the employment of a mentally retarded person it should never be from the standpoint of charity or welfare. The employer should be sold on the ability of the person to add to the value of the business.⁵⁸

⁵⁵Ibid.

⁵⁶Tabor, op. cit., p. 51.

⁵⁷Fouracre, op. cit., p. 19.

⁵⁸MacDonald, op. cit., p. 64.

State Responsibilities

As a governing body and because of the interest the state has in its people, the state can be considered as a community. The state government cannot hazard ignoring the mentally retarded as a group. There is too much of a risk both for society and for the mentally retarded group. Some state organization should take the responsibility and fill certain gaps in the developmental program. It should set up and lobby for regulations. The organization should try to obtain standards for activities taking place within its borders. It should certify and supervise foster homes and placement homes. It should assure placement of the placeable. It should encourage school districts to form classes in the area of Special Education and should give financial assistance. Counseling services should be extended to parents, schools, physicians, and mentally handicapped individuals. Finally, a state organization should provide residential care for those who cannot profit from the community experiences.⁵⁹

⁵⁹Richard H. Hungerford, "The Responsibilities of the State for the Retarded Pre-Adolescent Child," The Pre-Adolescent Exceptional Child (Langhorne: The Woods Schools, May, 1953), pp. 46-48.

III. EMPLOYMENT

Problems of Providing Employment for the Handicapped

One problem in employment is that of training. DiMichael reports a study which he and Terwilliger conducted among mentally retarded employees in 1952. The study indicated that 50 per cent of this group had received training on the job.⁶⁰ This type of assistance on the part of the employer helps the employee to adjust to his new life as a worker, and it helps him to become a more productive worker. This method also solves one of the major problems of employing the handicapped.

Another way in which the mentally retarded worker gains experience is simply by shifting from one job to another until he learns what is needed in order to hold a position.⁶¹ A third way is provided by the school. The school can set up pre-vocational training courses.

Types of Work

DiMichael lists a study conducted by Weaver, in 1946, which showed that many mentally defectives performed worthwhile activities in military service. About 8,000

⁶⁰Salvatore G. DiMichael, "The Problem of Post Adolescence," The Exceptional Child Faces Adulthood (Langhorne: The Woods Schools, May, 1955), p. 27.

⁶¹Ibid., pp. 28-29.

were inducted, and of this number, approximately two-thirds were retained.⁶²

DeProspero reports another study conducted by Bell which

. . . showed that in 18 industries covering 2,216 occupations of the semi-skilled or unskilled level, 7% required no educational background while 47% required some elementary school training.⁶³

This study showed that there are many jobs within their academic training that the mentally retarded can do. There are several follow-up studies that show that these youth succeeded in such jobs as helpers to truck drivers, news boys, peddlers, and general helpers in stores and markets. They were also successful as messengers, dishwashers, and elevator operators.⁶⁴

Engle mentioned several studies which indicated the types of jobs that the mentally handicapped can do. One study, conducted in Los Angeles, in 1940, showed that there was ". . . considerable opportunity for the mentally handicapped worker in mechanical, natural, and personal

⁶²Ibid., p. 29.

⁶³DeProspero, "The Problem of Evaluation," op. cit., p. 22.

⁶⁴Anna M. Engle, "Employment of the Mentally Retarded," American Journal of Mental Deficiency, 57:244, October, 1952.

service fields . . ."⁶⁵

The following excerpt from a study, conducted in Cleveland, in 1929-30, shows the types of work the mentally handicapped (I.Q.'s of from 50-70) can do:

No. of men	Type of work
50 . . .	General factory work including light machine and stock work
11 . . .	Skilled factory work (grinders, weaver, etc.)
11 . . .	Bus boys, messengers, porters
7 . . .	Foundry workers, core makers, moulders' helpers
6 . . .	Truck and wagon drivers
5 . . .	Railroad and outside labor
5 . . .	Apprentices, building trades
4 . . .	Newsboys
4 . . .	Workers in bakeries
3 . . .	Tailors' helpers or pressers
2 . . .	Auto repairers
2 . . .	Clerks in small stores
2 . . .	In the Navy
9 . . .	Miscellaneous (one per type) ⁶⁶

Other studies show similar results.⁶⁷

What the Employer is Looking For

When a personnel manager or employer looks at a prospective employee, he has one major purpose in mind, and that is to find the right man for the available job.

⁶⁵Ibid., p. 248.

⁶⁶Ibid., p. 246.

⁶⁷Ibid., pp. 243-266.

The purpose of the interview is to give both sides a chance to look over or "size up" the other. In the mind of the employer, paraphrasing Douglas and Barcroft, these are the important questions to ask:

1. Can this man get along with his associates?
2. Does he have the personality qualities to fulfill his duties?
3. Is he willing to accept his assignments?
4. Does he have the skills to fulfill the requirements?
5. Is he going to be persistent in his work?
6. Will he be happy in his new job?
7. Does he show any marked physical defects?
8. Is he over-bearing, over-aggressive, conceited, know-it-all?
9. Does he show lack of interest and enthusiasm, or is he passive and indifferent?
10. Does he show lack of confidence and poise?⁶⁸

Mase states:

. . .To hold jobs, those who are mentally retarded must have certain positive attitudes: desire to work, sense of responsibility, good personal habits, and an ability to get along with their co-workers. These attributes are basic to whatever work can be performed.⁶⁹

⁶⁸William A. Douglas and Paul Barcroft (eds.) Career (Chicago: Career Publications, Inc., The Lakeside Press, 1953), p. 4.

⁶⁹Darrel J. Mase, "The Scientific Basis for Selection," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 32.

Causes for Job Failure

There are many important reasons why some youth fail to get jobs, or fail to hold them. The following reasons are given by DeProspero:

1. Poor manual dexterity
2. Not fast enough
3. Unrealistic wage demands
4. Failure to notify employer of absence
5. Lack of responsibility
6. Poor comprehension of what is to be done
7. Attitude and behavior
8. Inability to get along with fellow-workers
9. Lateness
10. Lack of interest in work
11. Too shy
12. Too talkative
13. Inability to travel alone
14. Unintelligible speech
15. Parental aspirations above level of ability⁷⁰

A Guide for Counselors

It is the duty of the guidance counselor to assist the mentally retarded in understanding what lies before him in the working world. The following guide was developed for use by counselors.

Abilities related to performing jobs available in the community:

What skills has he learned? What tools and equipment is he able to handle deftly and safely?

What method of instruction can he handle? Oral? Written? See and do? Audio-visual?

⁷⁰Chris J. DeProspero, "Opportunities for the Exceptional Child," The Adolescent Exceptional Child (Langhorne: The Woods Schools, April, 1954), p. 26.

What is his capacity to understand step by step instructions and follow them? Must he have renewed instruction daily?

Can he tell time and operate a time clock?

Can he count and make change? Does he know the meaning of wages, pay check, hours, supervisor, etc.?

As determined by standard achievement tests, what is his grade level of reading ability? Of arithmetic ability? Of language arts?

Is his health good?

What is his ability to verbalize and carry on a conversation?

Can he write his name, address, and telephone number?

Can he fill out a simple application for work? How much help did he need to fill out the E.S. "Work Application" card?

Personality resources for being stable and capable of learning the amenities of human relationships:

How does he get along with others?

Is he a behavior problem?

Is he able to maintain acceptable grooming and personal hygiene? Does he have acceptable social habits?

Can he travel alone, use public transportation?

How reliable is he to report promptly, work consistently, complete assignments?

Motivation enough to want to make good on a job.

What kind of a job would he like? His first choice? Others?

What influenced his choice?

To what extent does he have the support of his parents to help him (if he needs it) by going with him to apply for work, seeing that he gets to work on time, arranging about his transportation, lunches, etc.?

Where has he applied for work? Indicate results.

Is he enthusiastic about going to work?

Reasonable physical fitness to perform.

Does he have appearance of normalcy?

Does he have strength and stamina to walk, stand, carry, without much fatigue?

Does he have a secondary disability? Has it affected his school work or activities? Does it need to be corrected before he takes a job?

Are there any medical treatments now in progress or planned for the near future?

Please include a copy of his health card.

Vocational plans.

Is immediate employment the goal at this time? Is referral to the Employment Security Department a part of the plan?

Is vocational training contemplated? At a Vocational Training School?

Is referral to the Division of Vocational Rehabilitation being considered?

Is sheltered work recommended at this time?

Is home employment the best plan at this time?⁷¹

⁷¹M. Peterson, "Guide for Counselors of Students of Pacific Prevocational School, Seattle Public Schools" (Seattle: Employment Security Department in cooperation with Pacific Prevocational School, May, 1957), pp. 1-2 (Mimeographed.)

SUMMARY OF CHAPTER II

Chapter II consists of three main areas. The first section concerns the literature regarding the general characteristics of the mentally retarded. Mental retardation may be caused by genetical or environmental factors. Also, as brought out in this chapter, the terminology of this field is in a state of transition and as a result, there is some confusion as to which is the proper term to use when referring to a specific type of mental retardation. The intellectual ability of the mentally retarded is below normal but these youth are influenced by the same environmental factors that affect normal youth.

The second section of Chapter II deals with the literature about the role of the community in providing adequate facilities for the diagnosis and training of mentally handicapped individuals. The greatest portion of this section is devoted to the role of the school in setting up and providing for Special Education. The major aim of the school is to give an opportunity for good personality development. This is probably more important than vocational training. However, vocational training is one of the major goals of Special Education.

The third section reports the literature which explores the employment field and lists the types of jobs

that have been held by Special Class graduates. These studies show that there is a place in the working population for mentally handicapped people if they are guided into proper types of work.

Chapter III continues in the direction of employment. The tables presented show some of the jobs it is believed could be filled adequately by mentally subnormal individuals. The tables in Chapter III also show the basic competencies needed for an individual to succeed in any one particular job.

CHAPTER III

ORGANIZATION AND INTERPRETATION OF THE TABLES

The data gathered in this study of occupations for the Seattle, Washington, area is presented in this chapter in the form of tables. The first column, entitled Job Title and Description, identifies the specific job and describes the duties the worker will have to perform. The material in the first column was taken from the U. S. Government publication, Job Descriptions.¹ The second column, entitled M.A., gives the approximate mental age required to succeed in the occupation. These mental ages were developed from a comparison of previous studies on occupational abilities. (See Chapter II.) The third column, Training Time, was taken from the U. S. Government publication, Worker Trait Requirements for 4,000 Jobs.² The remaining eight columns of information were also selectively abstracted from this publication.

To make it easier for the reader to locate a

¹The Job Analysis and Information Section, Division of Standards and Research, Job Descriptions, 14 vols., (Washington, D. C.: Government Printing Office, 1939).

²United States Employment Service, Estimates of Worker Trait Requirements for 4,000 Jobs as Defined in the Dictionary of Occupational Titles (United States Department of Labor, Washington, D. C.: Government Printing Office, 1957).

specific job, the jobs related to specific industries have been organized under the titles of those industries. In developing the tables, it was necessary to use a code. In order to avoid confusion, direct quotes have been used wherever possible. Much of the code has been abstracted directly from Worker Trait Requirements for 4,000 Jobs. Without a code the tables were too long and awkward. The code consists of three types of symbols: (1) an abbreviation, (2) a numerical symbol, and (3) an alphabetical symbol. Given below are the symbol meanings:

M.A.	Approximate mental age
Train. Time	Approximate training time 1-short demonstration 2-short demonstration to 30 days 3-30 days to 3 months 4-3 to 6 months
Code No.	D.O.T. Number used in job description
Verbal	Ability to understand and use words 5-lowest 10% of working population 4-lower 1/3 less 5 3-middle 1/3
Num.	Numerical ability; to do arithmetic quickly 5-as above, under Verbal
Motor.	Motor coordination 5-as above, under Verbal
Temp.	Temperaments 1-variety and change 2-repetitive, short cycle 3-under specific instructions 4-direction, control, planning 5-dealing with people 6-isolation 7-influencing people

- 8-performing under stress
- 9-sensory or judgmental criteria
- 0-measurable or verifiable criteria
- X-feelings, ideas, facts
- Y-set limits, tolerances or standards

Interest

- 1-things and objects
- 2-business contact
- 3-routine concrete
- 4-social welfare
- 5-prestige
- 6-people, ideas
- 7-scientific, technical
- 8-abstract, creative
- 9-nonsocial
- 0-tangible, productive satisfaction

Physical Capacities

- S-sedentary
- L-light
- M-medium
- H-heavy
- V-very heavy
- 1-strength
- 2-climbing, balancing
- 3-stooping, kneeling
- 4-reaching, handling
- 5-talking, hearing
- 6-seeing

Working Conditions

- I-inside
- O-outside
- B-both
- 1-inside, outside
- 2-cold
- 3-heat
- 4-wet, humid
- 5-noise
- 6-hazards
- 7-fumes, odors³

The definitions that follow have been abstracted in part from the publication, Worker Trait Requirements for

³Ibid

4,000 Jobs. These definitions are given in order to explain fully the terms used in the tables.

TRAINING TIME

DEFINITION

For the purpose of this project, TRAINING TIME is defined as the amount of "specific vocational preparation" and "general educational development" necessary for a worker to acquire the knowledges and abilities necessary for average performance in a particular job-worker situation.

General Educational Development: This embraces those aspects of education which contribute to the worker's:

- (a) Reasoning development, adaptability to the social environment, and ability to follow instructions.
- (b) Acquisition of "tool" knowledges such as language and mathematical skills.

It is education of a general academic nature ordinarily obtained in elementary school, high school, or college which does not have a recognized, fairly specific occupational objective. It may derive also from experience and self-study.

Specific Vocational Preparation: This is the amount of time required to learn the techniques, acquire information, and develop the facility needed for average performance in a specific job-worker situation.

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APTITUDES

DEFINITION

For the purpose of this project, aptitudes are defined as the specific capacities or abilities required of an individual in order to facilitate the learning of some task or job duty.

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DEFINITIONS OF APTITUDE FACTORS

V - VERBAL: Ability to understand meanings of words and ideas associated with them, and to use them effectively. To comprehend language, to understand relationships between words and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

N - NUMERICAL: Ability to perform arithmetic operations quickly and accurately.

.....

K - MOTOR COORDINATION: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

.....

TEMPERAMENTS

DEFINITION

...Those personality qualities which remain fairly constant and reveal a person's intrinsic nature . . .

.....

THE FACTORS (OF TEMPERAMENT NEEDED IN SPECIFIC SITUATIONS)

On the following pages 12 factors are defined in terms of situations in jobs that have been judged to be homogeneous in the temperamental adjustment required. For the purpose of this study we are calling each of these 12 groups of situations temperament factors. Designations and definitions for these factors follow:

1. VARCH.--Situations involving a variety of duties often characterized by frequent change.
2. REPSC.--Situations involving repetitive or short cycle operations carried out according to set procedures or sequences.

3. USI.--Situations involving doing things only under specific instruction, allowing little or no room for independent action or judgment in working out job problems.
4. DCP.--Situations involving the direction, control, and planning of an entire activity or the activities of others.
5. DEPL.--Situations involving the necessity of dealing with people in actual job duties beyond giving and receiving instructions.
6. ISOL.--Situations involving working alone and apart in physical isolation from others, although activity may be integrated with that of others.
7. INFLU.--Situations involving influencing people in their opinions, attitudes, or judgments about ideas or things.
8. PUS.--Situations involving performing adequately under stress when confronted with the critical or unexpected or taking risks.
9. SJC.--Situations involving the evaluation (arriving at generalizations, judgments, or decisions) of information against sensory or judgmental criteria.
0. MVC.--Situations involving the evaluation (arriving at generalizations, judgments, or decisions) of information against measurable or verifiable criteria.
- X. FIF.--Situations involving the interpretation of feelings, ideas, or facts in terms of personal viewpoint.
- Y. STS.--Situations involving the precise attainment of set limits, tolerances, or standards.

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INTERESTS

DEFINITION

"An interest is a tendency to become absorbed in an experience and to continue it, while an aversion is a tendency to turn away from it to something else," says Walter V. Bingham.

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THE INTEREST FACTORS (NEEDED IN SPECIFIC SITUATIONS)

The Interest Factors to be used in this study are as follows:

- | | |
|---|--|
| 1. Situations involving a preference for activities dealing with Things and Objects. | vs. 6. Situations involving a preference for activities concerned with People and the Communication of Ideas. |
| 2. Situations involving a preference for activities involving Business Contact with People. | vs. 7. Situations involving a preference for activities of a Scientific and Technical nature. |
| 3. Situations involving a preference for activities of a Routine, Concrete, Organized nature. | vs. 8. Situations involving a preference for activities of an Abstract and Creative nature. |
| 4. Situations involving a preference for Working for People for their presumed good as in the Social Welfare sense, or for dealing with people and Language in Social Situations. | vs. 9. Situations involving a preference for activities that are Nonsocial in nature, and are carried on in relation to Processes, Machines, and Techniques. |
| 5. Situations involving a preference for activities resulting in Prestige or the Esteem of Others. | vs. 0. Situations involving a preference for activities resulting in Tangible, Productive Satisfaction. |

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MANUAL FOR RATING PHYSICAL CAPACITIES AND WORKING CONDITIONS

DEFINITION

Physical Capacities are the specific constitutional traits in people necessary for them to meet the physical demands of job-worker situations

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DEFINITIONS OF FACTORS

A. PHYSICAL CAPACITIES FACTORS (Strength)

1. Lifting, Carrying, Pushing and Pulling

These are the primary "strength" physical requirements, and generally speaking, a person who engages in one of these activities can and does engage in all. Specifically, each of these activities can be described as:

- (1) Lifting: Raising or lowering an object from one level to another; includes upward pulling.
- (2) Carrying: Transporting an object, usually holding it in the hands or arms, or on the shoulder.
- (3) Pushing: Exerting force upon an object so that the object moves away from the force. This includes slapping, striking, kicking, and treadle actions.
- (4) Pulling: Exerting force upon an object so that the object moves toward the force; includes jerking.

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"Sedentary Work"

Lifting 10 pounds maximum. Includes occasionally lifting and/or carrying dockets, ledgers, small tools, and the like. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary to carry out job duties. Rate jobs sedentary if

walking and standing is required only occasionally and all other sedentary criteria are met.

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"Light Work"

Lifting 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Also, even though the weight lifted may be only a negligible amount, a job will be rated in this category (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing and pulling of arm and/or leg controls.

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"Medium Work"

Lifting 50 pounds maximum with frequent lifting and carrying of objects weighing up to 25 pounds. Consideration (2) under Light Work may apply here.

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"Heavy Work"

Lifting 100 pounds maximum with frequent lifting and carrying of objects weighing up to 50 pounds.

.....

"Very Heavy Work"

Lifting objects in excess of 100 pounds with frequent lifting and carrying of objects weighing up to 80 pounds.

.....

2. Climbing and Balancing:

These activities are defined as:

- (1) Climbing: Ascending or descending ladders, stairs, scaffolding, ramps, poles, ropes, and the like, using the feet and legs or using hands and arms as well.

- (2) Balancing: Maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces; or maintaining body equilibrium when performing gymnastic feats.

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3. Stooping, Kneeling, Crouching, and Crawling:

These activities are defined as:

- (1) Stooping: Bending the body downward and forward by bending the spine at the waist.
- (2) Kneeling: Bending the legs at the knees to come to rest on the knee or knees.
- (3) Crouching: Bending the body downward and forward by bending the legs and spine.
- (4) Crawling: Moving about on the hands and knees or hands and feet.

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4. Reaching, Handling, Fingering and Feeling

These activities involve the use of one or both of the upper extremities and are defined as:

- (1) Reaching: Extending the hands and arms in any direction.
- (2) Handling: Seizing, holding, grasping, turning, or otherwise working with the hand or hands; not fingering.
- (3) Fingering: Picking, pinching, or otherwise working with the fingers primarily (rather than with the whole hand or arm as in handling).
- (4) Feeling: Perceiving such attributes of objects as size, shape, temperature or texture, by means of receptors in the skin, particularly those of the finger tips.

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5. Talking and Hearing:

These activities are defined as:

- (1) Talking: Expressing or exchanging ideas by means of spoken word.
- (2) Hearing: Perceiving the nature of sounds by the ear.

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6. Seeing:

Seeing is the ability to perceive the nature of objects by the eye. The more important aspects of vision are: (1) Acuity, far or near, (2) Muscle Balance, far or near, (3) Depth Perception, (4) Field of Vision, (5) Accommodation, and (6) Color Vision.

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B. WORKING CONDITIONS FACTORS

1. Inside or Outside:

These conditions are defined as:

- (1) Inside: Protection from weather conditions but not necessarily from temperature changes.
- (2) Outside: No effective protection from weather.

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2. Extremes of Cold plus Temperature Changes:

These conditions are defined as:

- (1) Extremes of Cold: Temperature sufficiently low to cause marked bodily discomfort unless the worker is provided with exceptional protection.
- (2) Temperature Changes: Variations in temperature which are sufficiently marked and abrupt to cause marked bodily reactions.

.....

3. Extremes of Heat Plus Temperature Changes:

These conditions are defined as:

- (1) Extremes of Heat: Temperature sufficiently high to cause marked bodily discomfort unless the worker is provided with exceptional protection.
- (2) Temperature Changes: Variations in temperature which are sufficiently marked and abrupt to cause marked bodily reactions.

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4. Wet and Humid:

These conditions are defined as:

- (1) Wet: Contact with water or other liquids.
- (2) Humid: Atmospheric condition with moisture content sufficiently high to cause marked bodily discomfort.

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5. Noise and Vibration:

For this factor to be rated, there must be sufficient noise, either constant or intermittent, to cause "marked distraction" or "possible injury to the sense of hearing" and/or sufficient vibration (which is the production of an oscillating movement or strain on the body or its extremities from repeated motion or shock) to "cause bodily harm if endured day after day".

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TABLE I

BAKERY INDUSTRY

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER-			TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
				VERBAL	ICAL	MOTOR				
<u>Flour Blender</u> - Blends various types of flour in amounts shown on production schedules. May clean empty flour sacks in a machine.	10		8-02.10							I
<u>Flour Sifter</u> - Empties sacks of flour into a power driven sifting machine. Carries sacks of flour to machine from storage place. Also cleans machine.	8-10	2	8-02.10 6-X4.499	4	5	4	2 3	1 3	H 4	I 7
<u>Cake Cutter</u> - Slices cake on a cake cutting machine. Adjusts fence on saw table.	8-9	2	6-02.440	4	4	4	2 3 Y	9 0	M 2 3 4 6	I
<u>Cake Wrapping Machine Operator</u> - Feeds cakes into a machine that wraps and seals them. Makes routine adjustments on machine. Loads with wrapping material. Cleans.	10	2	7-68.641 6-X2.409	4	5	4	2 3	1 3	L 4	I
<u>Slicing-and-Wrapping-Machine Operator</u> - Tends a combination machine that cuts loaves of bread into slices and wraps the cut loaves. Also sets up machine, feeds bread into machine, inspects wrapped bread, oils and greases machine.	8-9	2	6-02.430 6-X2.479	4	4	2	2 Y	3 9	L 4	I
<u>Baker Apprentice</u> - Works under close supervision of baker. Begins with simple tasks.	10		7-99.210							I
<u>Batter-Mixer Helper</u> - Assists batter-mixer in preparing batter for cakes, cookies, or other products.	10	3	8-02.10 4-X6.671	4	5	4	2 3	1 3	H 4	I
<u>Batter-Scaler Helper</u> - Helps to fill cake pans with batter. Removes filled pans and places on racks. Moves filled rack to oven.	8-9		6-02.131							
<u>Bench-Hand Helper</u> - Assists bench hand by trucking dough, pans, and supplies on hand-truck. May help to shape dough.	10		6-02.142							
<u>Cooky-Machine Helper</u> - Helps to set up, adjust, make minor repairs to cooky cutting machine. Loads hoppers with dough. Removes pans of formed cookies. Cleans work area as directed.	8-10	2	8-02.10 4-X6.675	4	5	4	2 3	1 3	H 4	I

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Dough-Mixer Helper</u> - Assists in adding ingredients into dough for bread, rolls, and crackers. Carries containers of ingredients to mixing machine. Works under supervision.	8-9		8-02.10 4-X6.671	4	4	4	2 Y	3 9	H 2 4 6	I 4
<u>Cutter-Hand</u> - Slices cakes or pies, by hand, so they can be sold by the slice. (Uses slotted guide).	9		8-02.10							
<u>Dough Feeder</u> - Feeds dough into a hopper.	8-9	2	8-02.10 6-X4.479	4	5	2	2 3	3 9	M 4	I 5
<u>Flour Blender Helper</u> - Helps in the flour mixing operations. Trucks ingredients from storage to mixing machine. Lifts sacks of flour.	10	2	9-63.11 6-X4.679	4	4	4	2 3	1 3	H 4	I 7
<u>Fruit Preparer</u> - Sorts, cleans, peels, and slices fruit by hand or machine, preparatory for use in pie fillings.	8-9	3	6-02.043 6-X4.679	4	5	4	2 9	3 9	M 4	I
<u>General Helper</u> - Performs a variety of tasks at request of other workers.	10		8-02.10							
<u>Grinder Operator</u> - Grinds up unsaleable crackers and cookies for reuse or sale as animal food.	8-9		8-02.10							
<u>Icing Dipper</u> - Coats cookies on conveyor belt or dips into a trough of liquid icing.	8-9		6-02.314							
<u>Machine Feeder - Cooky</u> - Feeds cookies to depositing machine by loading automatic feeding device. Removes cookies from container. Usually works with another.	8-9									
<u>Packer Hand, Boxer</u> - Places bakery products into individual cartons or a number of items such as cookies and pretzels into larger cartons.	8-9		8-02.10							
<u>Pan Cleaner</u> - Scrapes and wipes pans. Cleans them for reuse.	8-9	2	9-63.11 4-X6.675	4	5	3	2 3	1 3	L 4	I

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER-			TEMPERAMENT	INTEREST	PHYSICAL		WORKING CONDITIONS
				VERBAL	ICAL	MOTOR			CAPACITY		
<u>Pan Dumper</u> - Dumps bakery products from pan to cooling rack.	8-9	2	8-02.10 6-X4.379	4	5	3	2 3	1 3	L 4		I
<u>Pan Duster</u> - Dusts top surfaces of bread-boards, and inside of bread pans. May be added to work of Molding Machine Operator.	8-9	2	8-02.10 4-X6.675	4	5	3	2 3	1 3	L 4		I
<u>Ice-Mixer Helper</u> - Aids in preparing icing for buns, sweet bread, cakes, cookies, and pastries. Trucks ingredients from storage or mixing area. Cleans equipment.	10	3	8-02.10 6-X2.671	4	4	3	2 3	9 0	M 4		I
<u>Molding-Machine Operator-Helper</u> - Helps in shaping and panning dough for final baking. Helps to clean equipment.	10	2	8-02.10 4-X6.675	4	5	3	2 3	1 3	L 4		I
<u>Ovenman Helper III, IV</u> - Works under direct supervision of ovenman. Pushes racks into oven and pulls them out. May start and regulate fires of oven, under direction.	10		8-02.10 6-X6.64	4	5	3	2 3	1 3	M 4		I 3
<u>Pie-Filling-Cooker Helper</u> - Performs the less skilled duties of pie-filling cooker under supervision. Opens containers, using hammer and chisel.	8-9	2	6-02.10 6-X4.379	4	5	3	2 3	1 3	L 4		I
<u>Bag Sealer</u> - Wraps bakery products in waxed paper. May weigh bulk products. May use stapling machine.	8-9	2	8-02.10 6-X4.309	4	5	4	2 3	1 3	L 4		I
<u>Bread Racker</u> - Stacks loaves of hot bread on rack trucks and then moves to cooling room. May scorch trademark on the bottom of rolls.	10		8-02.10								
<u>Cake Bander</u> - Wraps paper advertising bands around cakes.	8-9		8-02.10								
<u>Conveyor Man</u> - Removes empty baking pans from conveyor and loads on hand truck.	8-9		9-63.11								
<u>Cracker Breaker</u> - Breaks sheets of crackers for cooling. Discards defective crackers into waste box.	8-9		8-02.10								
<u>Cracker Inspector</u> - Inspects all baked crackers. Removes defectives.	8-9		8-02.10								

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Caller Scrapman</u> - Inspects all unbaked cookies. Removes defectives.	8-9		8-02.10							
<u>Pan Feeder</u> - Places empty baking pans on conveyor to be filled automatically.	7	2	8-02.10 6-X4.379	4	5	4	2 3	1 3	L 4	I
<u>Pan Greaser</u> - Greases metal baking pans.	7	2	8-02.10 6-X4.379	4	5	4	2 3	1 3	L 4	I
<u>Pan Racker</u> - Pushes rack truck to proof room where dough rises. Supplies molding machine operator with pans.	8		9-63.11							
<u>Pan Washer, Hand</u> - Washes dirty pans in hot soapy water. Also sterilizes them.	5	2	9-63.11 6-X6.62	4	4	4	2 3	1 3	L 4	I 4
<u>Pan Washer, Machine</u> - Washes pans by machine. Prepares washing machine. Takes clean pans to other workers.	8		9-63.11							
<u>Pie Assembling Jobs</u> - These jobs are usually found in a mechanized pie bakery and are of a repetitive type.	5	2	8-02.10 6-X4.379	4	5	3	2 3	1 3	L 4	I
<u>Sticker</u> - Arranges cookies for hand dipping by putting them on wire pins of a conveyor rod for icing.	5		8-02.10							

TABLE II

CLEANING, DYEING, AND PRESSING INDUSTRY

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Driver Relayman; Routeman</u> - Drives a light delivery truck from cleaning establishment to places of delivery. Delivers clothes and may collect money. May have to keep simple records.	8-9	2	7-35.100 6-X2.492	3	3	3	2 5	2 3	M 4 6 2 5	B
<u>Marker</u> - Marks in-coming articles that are to be cleaned with identifying marks.	6		7-57.021							
<u>Sorter</u> - Sorts in-coming soiled clothing into groups according to fabric, color, degree of soil.	6	2	1-04.01 1-X4.9	3	4	4	2 3	1 3	S 4	I
<u>Dry Cleaner Helper</u> - Performs the less skilled tasks such as loading and unloading machines.	7	2	9-57.11 4-X6.651	4	5	5	2 3	1 3	M 4	I 4
<u>Errand Boy (Stock Boy)</u> - Transports garments from one worker to another. May perform other simple tasks.	6-7	2	9-88.40 1-X2.8	4	4	4	2 3	1 3	M 4	I
<u>Tumbler Operator</u> - Operates a machine which dries and deoderizes articles.	6	2	9-57 6-X4.651	4	4	4	2 Y	1 3	M 3 4 5 6	I 3 4 6
<u>Carding Machine Operator (Tucking Machine Operator)</u> - Operates a carding machine to raise nap of blankets.	6-7	3	6-27.576 6-X4.352	4	4	3	2 Y	3 9	L 4 6	I 5
<u>Curtain Starcher</u> - Places curtains in starch solution, operates a device to squeeze out starch.	9									
<u>Curtain Stretcher</u> - Puts curtains on an adjust-stretcher.	9		9-57.11							
<u>Steamer - (Hebdon Machine - Sponger Helper)</u> - Steams dry-cleaned garments prior to spotting, (to expose spots).	6	2	9-57.11 6-X2.604	4	5	4	2 3	1 3	L 4	I 4
<u>Button girl</u> - Removes buttons, buckles, etc. to prevent loss or damage.	9		9-57.11							
<u>Coat Steamer</u> - Steams cloth or fur and brushes the nap in the natural direction to remove wrinkles.	10	2	7-57.511	4	5	4	2 3	1 3	L 4	I 4
<u>Insecticide Sprayer</u> - Sprays garments to be placed in storage.	6		7-57.992							

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER-			TEMPERAMENT			INTEREST		PHYSICAL CAPACITY		WORKING CONDITIONS	
				VERBAL	ICAL	MOTOR									
<u>Lining Presser</u> - Presses linings of coats and other garments after cleaning.	7	2	7-57.501	4	5	4	2	3	1	3	L 4	I	4		
<u>Mender</u> - Repairs tears, holes, and other defects in curtains and draperies.	10		4-19.332												
<u>Tie Presser</u> - Presses, shapes, and repairs ties.	6		9-57.11												
<u>Lining Scrubber</u> - Cleans linings of fur coats. Removes dirt and grease spots.	7		9-57.11												
<u>Hatter Helper</u> - Sorts hats as to required treatment. Does other simple tasks.	9	2	8-24.01 6-X4.358	4	5	5	2	3	1	3	M 4	I			
<u>Moth Proofer (Rug)</u> - Vacuum cleans floor coverings and sprays them with solution.	8														
<u>Rug Cleaner (Machine)</u> - Works with another at automatic cleaning machine.	8	2	9-57.11 6-X4.651	4	5	4	2	3	1	3	H 3 4	I	4		
<u>Rug Sizer</u> - Applies an even coat of size to the backs of rugs.	7	2	7-57.831	4	5	4	2	3	1	3	H 3 4	I	4		
<u>Rug Wrapper</u> - Wraps floor covering in paper for protection.	6	2	9-57.11	4	5	4	2	3	1	3	H 3 4	I	4		
<u>Assembler</u> - Assembles component parts of garments for delivery.	7		9-57.11 or 9-57.21												
<u>Box Boy or Girl</u> - Sets cardboard boxes used in packing cleaned articles.	6	1	9-68.30 6-X4.307	4	5	3	2	3	1	3	L 4	I			

TABLE III

CONFECTIONERY

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER-			TEMPERAMENT			INTEREST	PHYSICAL		WORKING CONDITIONS
				VERBAL	ICAL	MOTOR					CAPACITY		
<u>Bag Filler</u> - Holds bag under a discharge spout and steps on a release pedal which discharges confections.	8-9	2	8-04.10 8-10.91 6-X2.479	4	4	4	2	3		1 3	L 1		I
<u>Basket-dipping Machine Operator Helper</u> - Brushes or shakes nuts or fruits into depressions in molds and hands them to another operator.	8-9		8-05.21										
<u>Candy Assembler</u> - Puts two or more confection pieces together. No originality or artistic ability needed.	8-9		8-05.21										
<u>Candy-Cutting Machine Operator</u> - Arranges candy centers on trays as they are ejected from the cutting machine.	8-9		8-05.21										
<u>Candy Molder</u> - Makes candy centers by rolling candy to uniform shape by hand.	8-9		8-05.21										
<u>Candy Packer</u> - Places pieces of candy in boxes by hand. Follows a prescribed packing arrangement. May count and/or weigh candy. May work on a conveyor belt.	10	2	8-05.21 6-X4.379	4	5	3	2	3		1 3	L 4		I
<u>Candy Roller</u> - Applies a coating of grated nuts to candy. Presses them in by rolling in palms of hands.	8-9		8-05.21										
<u>Candy Separator</u> - Separates or breaks coated candies apart with a wire tool. Candy passes on conveyor.	8-9	2	2-27.91 2-X5.2	3	3	4	3	5		2 3	L 4		B
<u>Candy Sifter</u> - Shakes candy in a sieve to remove excess powdered sugar.	8-9		8-05.21										
<u>Candy Steamer</u> - Steams jelly candies to soften them so sugar will adhere to them.	10		8-05.21										
<u>Candy Wrapper (Packer)</u> - Folds or twists wrapping around individual confections.	8-9		8-05.21										
<u>Caramel Dipper</u> - Coats candy centers by dropping one center at a time into syrup. Drops coated center on tray.	8-9		6-05.318										

TABLE IV

DOMESTIC AND PERSONAL SERVICE OCCUPATIONS

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER- VERBAL	ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Caretaker</u> - Keeps house, grounds, and other equipment in good order. Makes use of knowledge of home mechanics for simple household repairs.	10		2-04.04							
<u>Chambermaid; Maid, Second</u> - Keeps rooms and halls in sleeping area in order. May help with other duties. Makes beds, serves meals, and does cleaning.	10	3	2-06.11 2-X5.9	4	4	4	1 3	3 6	L 2 3 4	I
<u>Chauffeur</u> - Drives car and is responsible for the care and maintenance of one or more cars. May do other work, as gardening.	11- 12	2	7-36.050 6-X2.492	4	4	4	1 3	1 2	L 4 6	I
<u>Child Monitor; Nursemaid</u> - Takes care of one or more children when parents are not at home. May be asked to perform some household duties.	10	2	2-07.01 2-X3.3	4	4	4	1 5	4 6	L 4 6	I
<u>Companion</u> - Lives with employer, usually a lonesome elderly lady. Keeps employer amused and interested. May be asked to read to employer.	10	2	2-09.03 2-X5.6	2	3	4	1 5	4 6	L 5	I
<u>Cook Helper</u> - Performs a variety of tasks to aid cook. Washes dishes, cleans floors.	10	2	2-05.03 2-X1.1	4	5	4	2 3	1 3	M 4	I 4
<u>General Maid</u> - Performs the activities of a household, child care, cleaning, dusting, cooks, sets table, does laundry.	8	3	2-06.11 2-X5.9	4	4	4	1 3	3 6	L 2 3 4	I
<u>Houseman; Handyman</u> - Performs a variety of cleaning duties and home mechanic repairs.	11- 12	2	2-04.01 6-X6.62	4	4	4	1 3	1 3	M 4	I
<u>Day Worker; House Cleaner</u> - Does heavy cleaning. Supplements cleaning done by regular worker.	10		2-01.01							
<u>Laundress</u> - Washes and irons linens and clothing. May do minor repairs to clothing and linens.	10		2-02.01							
<u>Mother's Helper; Farm Housemaid</u> - Works under supervision of housewife. Performs a variety of household tasks. Scrubs floors, prepares food, cares for children.	9	2	2-07.03 6-X6.62	4	5	4	2 3	1 3	L 3 4	I

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER-		MOTOR	TEMPERAMENT		INTEREST	PHYSICAL		WORKING CONDITIONS
				VERBAL	ICAL					CAPACITY		
<u>Housekeeper, Working</u> - Assumes the housewife's duties. Takes care of all the duties that arise in the home. Employer not usually well-to-do. Housewife may have other job.	11- 12		2-03.11									
<u>Barber, Apprentice</u> - Learns the barbering trade under supervision. Must pass state requirements before becoming a journeyman. May attend apprentice school.	10	3	2-47.12 2-X5.6	3	5	3	3	5	2 9	L 4 6	I	
<u>Beauty Operator, Apprentice</u> - Works under supervision. Must pass state examination for journeyman license.	10	1	2-47.4 2-X5.6	3	4	3	5	9	2 3	L 4 6	I	
<u>Maid; Supply Clerk</u> - Cleans floors and furnishings of establishment. Prepares equipment for other workers. May run errands.	8		7-88.760									
<u>Chauffeur, Funeral Car</u> - Drives a limousine to carry mourners. May deliver flowers or pick up relatives. Keeps car clean, washes windows.	11- 12	2	7-36.010 6-X2.492	4	4	4	1	3	1 2	L 4 6	I	
<u>Cooling-room Attendant</u> - Works in a room where patrons cool off after baths. Changes sheets, runs errands for patrons (gets tobacco, food), gives light alcohol rubs, shines shoes.	8	2	2-43.24 2-X5.6	4	5	4	2	3	2 6	L 4	I	
<u>Masseur, Apprentice</u> - Learns trade under close supervision of an experienced masseur. May perform a variety of jobs about the area.	8		0-52.42									
<u>Porter</u> - Cleans dressing rooms, halls, showers. Makes beds in dressing rooms. Also performs personal services, such as shining shoes.	8		2-86.10									
<u>Presser</u> - May use hand iron (.501) or machine (.511) to remove wrinkles in garments.	8		7-57.501									
<u>Hosiery Mender, Apprentice</u> - Works under the supervision of experienced worker.	7	3	6-14.331 6-X4.351	4	5	3	2	Y	3	S 6	I	

TABLE V

GARMENT MANUFACTURING

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Learner Machine Sewer</u> - Learns to operate standard and industrial machine. Sews unimportant seams on garments. Learns care of machine.	9	2	6-27.528 6-X4.352	4	5	4	2 3	1 3	L 4	I 5
<u>Baling Machine Operator</u> - Stacks work garments in a neat pile on baling machine. Actuates lever to compress cloth.	9		9-63.61							
<u>Delivery Boy Trucker Hand</u> - Makes local deliveries.	9	2	9-63.61 6-X6.64	4	5	4	2 3	1 3	V 3 4	I
<u>Folder III</u> - Folds garments in neat piles.	7		6-27.988							
<u>Labeler Hand</u> - Sticks label on cardboard box.	6		9-63.61							
<u>Button and Buckle Maker</u> - Covers each of two button halves and presses halves together.	9		9-13.22							

TABLE VI

JOBS FOR HOTEL AND RESTAURANT

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>FOOD SERVING</u>										
<u>Bus Boy or Girl</u> - Assists one or more waitresses by performing such tasks as taking dishes from tables to kitchen. Replaces table linens.	10	2	9-88.40 1-X2.8	4	4	4	2 3	1	L 4	I
<u>Car Server</u> - Serves customers of drive-in restaurants.	9	2	2-27.91 2-X5.2	3	3	4	3 5	2 3	L 4	B
<u>Cashier</u> - Receives payment from customers and makes change.	11- 12	2	1-01.53 1-X5.7	3	3	4	2 5	2 3	L 4 6	I
<u>Countergirl</u> - Takes orders at a lunch counter. Serves customers the food they order.	11- 12	4	2-27.13 2-X5.2	3	3	3	3 5	2 3	L 4 5	I
<u>Room-Service Waiter</u> - Serves food in rooms of patrons of hotels.	11- 12	2	2-27.11 2-X5.2	4	4	3	3 5	2 3	L 4 5	I
<u>Soda Dispenser</u> - Prepares all types of soda fountain drinks and ice cream dishes.	11- 12	2	2-27.11 2-X5.2	4	4	3	3 5	2 3	L 4 5	I
<u>Waiter or Waitress Informal</u> - Serves food to patrons in dining room.	10	2	2-27.11 2-X5.2	4	4	3	3 5	2 3	L 4 5	I
<u>MISCELLANEOUS - HOTEL</u>										
<u>Chambermaid</u> - Performs routine duties in cleaning and servicing of rooms. May work under supervision.	9	3	2-06.11 2-X5.9	4	4	4	1 3	3 6	L 2 3 4	I
<u>Houseman II</u> - Performs heavy cleaning duties.	9	2	2-04.01 6-X6.62	4	4	3	1 3	1 3	M 4	I
<u>Watchman</u> - Makes repeated tours of inspection around the premises.	10		2-61.03							
<u>Bellboy</u> - Performs tasks under supervision. Carries baggage, runs errands, etc.	9	2	1-23.14 1-X4.9	3	4	4	1 3	1 3	L	I
<u>Elevator Operator</u> - Operates an elevator for convenience of guests.	9	2	2-95.20 2-X5.9	4	4	4	2 5	2 3	L 4	I

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>FOOD PREPARATION</u>										
<u>Cook, Breakfast</u> - Prepares and cooks to order, 10 bacon, french toast, eggs, etc. Must be able to prepare several orders at a time.		5	2-26.91 2-X1.2	4	4	3	9 X	6 0	M 4	I 3
<u>Butcher Helper</u> - Cleans area. Grinds meat and 10 assists butcher in various other ways.			9-57.04							
<u>Cook Apprentice</u> - Assists cook to prepare 10 and cook various types of foods.		3	2-47.01 2-X1.2	4	4	3	9 X	6 0	M 4 6	I 3 7
<u>Cook Helper</u> - Assists any one cook to pre- 9 pare and cook foods. Works under close supervision.		2	2-05.03 2-X1.1	4	5	4	2 3	1 3	M 4	I 4
<u>Dishwasher Hand II</u> - Washes tableware by 5 hand. Assists other workers in kitchen. May have to take orders from counter.		2	2-29.61 6-X6.62	4	4	4	2 3	1 3	L 4	I 4
<u>Dishwasher, Machine</u> - Operates an automatic 8 dishwashing machine.			2-29.12							
<u>Garbage Man</u> - Collects garbage from various 8 stations in hotel. Cleans cans.			2-29.72							
<u>Kitchen Helper</u> - Scrubs, scrapes, and 5 cleans the working area. Carries dirty dishes to dishwasher. Disposes of garbage. Works under supervision.		2	2-29.71	4	5	4	2 3	1 3	M 4	I 4
<u>Pastry Cook Helper</u> - Carries supplies to 10 cook, greases pans, etc.		2	2-29.02 2-X1.2	4	5	4	2 3	1	H 4	I 3
<u>Short Order Cook</u> - Prepares a variety of 11- foods, sandwiches, salads, steaks, eggs. 12		5	2-26.91 2-X1.2	4	4	3	9 X	6 0	M 4	I 3

TABLE VII

INDUSTRIAL SERVICE AND MAINTENANCE JOBS

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	NUMER- VERBAL	ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Stableman; Barn Hand; Feedman; Groom;</u> <u>Hostler</u> - Cares for horses or mules, harnesses, saddles, and stable feeds animals. Brushes and curries, cleans stables, repairs broken or damaged harnesses and saddles. (May administer treatment for sick animals). Lays hay for bedding.	10		3-43.20							
<u>Trackman</u> - Repairs and maintains railroad tracks. Inspects track, beds, switches, levels rails, packs gravel and sand. Replaces ties, tightens rail joints.	10	3	9-32.41 6-X4.209	4	4	3	0 Y	1 9	H 3 4	0
<u>Fireman Helper, Boilerroom Helper</u> - Assists fireman by performing simple tasks. Unloads coal from railroad cars, handles wheelbarrow, removes ashes from boiler ash pit. Cleans boiler flues with brush, compressed air, or steam. Cleans work area. May tend stokers if fireman is gone. May do minor jobs of painting and steam fitting.	8-9									
<u>Pumpman, Pumper, Pump Operator</u> - Tends a power driven pump or battery of pumps. Starts, stops, or regulates speed. May be required to connect or disconnect pipe or hose. May be required to measure amounts of products. May use independent judgment in moving material.	8-9	4	7-72.510 4-X2.102	4	4	3	3 Y	1 9	L 4	B
<u>Water Filterer - Filterman</u> - Treats and filters water to make it suitable for use in steam boilers. Fills mixing tank by pump. May analyze samples of water.	10	5	7-54.621 6-X2.601	3	4	3	0 Y	1 9	M 4	I
<u>MATERIAL EQUIPMENT TRANSPORTATION</u>										
<u>Delivery Truck Driver, Light</u> - Delivers merchandise to customers. Drives light panel truck or platform truck. Loads truck to best facilitate unloading. May have to secure receipts.	10	2	7-36.260 6-X2.492	3	4	4	2 3	1 9	M 4 6	I
<u>Delivery Truck Driver, Helper (Routeman)</u> - Assists delivery truck driver in loading and unloading. Accompanies driver on run or route. Carries material or packaged goods. May collect for C.O.D.	8-9		9-35.10 6-X6.10	2	4	4	3 5	1 3	M 2 4 6	B

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Hand Trucker</u> - Pushes or pulls hand truck about. Moves material from worker to worker. Loads or unloads trucks. May record weight, stencil identification data, dispose of debris, stack material.	8-9		9-88.40 6-X6.64	2	5	4	2 3	1 3	V 3 4	I
<u>Messenger Errand Boy</u> - Delivers oral and written communications, valuable papers, and small parcels; collects, sorts, and delivers mail. May answer phones.	9	3	1-23.14 1-X4.9	3	3	4	3 5	2 5	L 4 6	B
<u>Truck Operator, Jitney Driver</u> - Drives small gas or electric truck with platform or dump body. Hoist or small crane truck is small and usually confined to specific work area.	10	3	7-36.260 6-X2.492	4	4	4	2 3	1 9	M 4 6	I
<u>MATERIAL AND EQUIPMENT - STORAGE JOBS</u>										
<u>Floor Boy, Errand Boy, Stock Boy</u> - Carries material from one department to another. Supplies goods for packaging, supplies merchandise to sales counter. May arrange merchandise in supply room, mark or identify goods. Cleans area.	9	2	9-88.40 1-X2.8	4	4	4	2 3	1 3	M 4	I
<u>Loader</u> - Loads articles and bulk or packaged materials into truck. May use skids or jacks or hoists. May weigh and record weights. (May load things, such as scrap iron).	8-9	1	9-22 6-X2.69	4	5	4	2 3	1 3	H 3 4	I 7
<u>CUSTODIAL AND RELATED JOBS</u>										
<u>Doorman II</u> - Opens and closes doors for people, carries baggage from entrance to car. Aids arriving and departing customers and gives information to those who ask for directions. May receive tickets from patrons.	8-9	2	2-45.10 2-X5.9	3	5	4	1 5	2 3	L 4 5	0
<u>Elevator Man (Freight, Passenger)</u> - Repeatedly operates the simple controls of an elevator to move freight or passengers between levels of a building. May call out information about departments on floors. May load or help to load freight.	10	2	2-95.30 .20 2-X5.9 6-X2.493	4	4	4	2 3 5	1 2 3	L 4	I

TABLE VIII

LUMBER INDUSTRY

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Cut Off Saw Operator Helper</u> - Brings material to operator and cleans work area.	7	2	8-93.77 6-X2.416	5	5	5	2 3	1 3	L 4	I 5
<u>Lumber Piler - Roustabout</u> - Works as part of a team to stack lumber.	8	2	8-33.11 6-X6.69	4	5	4	3 5	1 3	H 3 4	0
<u>Edger Man Helper</u> - Removes boards as they come from rear of feed rollers.	7	2	8-31.01 6-X4.429	4	4	5	2 3	1 3	H 3 4	I 7 5
<u>Planer Helper</u> - Takes finished stock from planer and moves it to storage.	8	1	8-33.05 6-X6.64	4	5	4	2 3	1 3	M 4	I
<u>Resaw Helper</u> - Stacks boards from resaw and sends those back that need to be sawed again.	9	1	8-33.05 6-X6.64	4	5	4	2 3	1 3	M 4	I
<u>Rip Saw Helper</u> - Stacks boards from rip saw and sends those back that need to be sawed again.	9	1	8-33.05 6-X6.64	4	5	4	2 3	1 3	M 4	I
<u>Bolter Tailer</u> - Discards mill slabs.	7	1	8-33.05 6-X6.64	4	5	4	2 3	1 3	M 4	I
<u>Bundler</u> - Bundles pieces of hardwood flooring.	7	2	9-68.30 6-X6.69	4	4	4	2 3	1 3	L 4	I
<u>Burner Man</u> - Burns waste at saw mill.	6	2	8-31.01 6-X6.69	4	5	4	2 3	1 3	H 3 4	0 7
<u>Car Whacker</u> - Lines freight cars with paper to protect lumber.	6	2	8-34.02 6-X6.69	4	5	4	2 3	1 3	H 3 4	0 7
<u>Log Washer</u> - Directs high pressure steam onto logs to remove dirt and rocks.	7		8-31.01							
<u>Lumber Handler Roustabout</u> - Moves lumber from place to place within a woodworking establishment.	9	2	8-31.01	4	5	5	3 5	1 3	H 3 4	0
<u>Shop Clean Up Man</u> - Sweeps and cleans floors and does other odd jobs.	6	2	9-32.01 6-X6.69	4	5	4	2 3	1 3	H 3 4	0
<u>Yard Laborer</u> - Picks up debris and wood scrap around lumber yard and performs other simple tasks.	7	2	9-32.01 6-X6.69	4	5	4	2 3	1 3	H 3 4	0

TABLE IX

MACHINE SHOPS

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

JOB TITLE AND DESCRIPTION	M.A.	TRAIN TIME	CODE NO.	VERBAL	NUMER- ICAL	MOTOR	TEMPERAMENT	INTEREST	PHYSICAL CAPACITY	WORKING CONDITIONS
<u>Buffer I</u> - Polishes metal parts by pressing part against wheel of a buffing lathe. (Semi-skilled).	10	3	6-77.020 6-X4.415	4	5	3	2 Y	1 9	L 4 6	I 6 7
<u>Electric Welder Apprentice</u> - Works under supervision, learns proper voltage and current output to use, types of joints and how to strike and hold an arc.	11- 12									
<u>Machinist Helper</u> - Performs manual tasks to assist other workers in the shop. Carries material to and from the worker. Cleans area.	11- 12	2	8-78.10 4-X2.020	4	5	4	2 3	1 3	H 3 4	I 5

TABLE X

RETAIL TRADE VOLUME III

An Analysis of Jobs for Mentally Handicapped
Individuals and the Competencies Needed to
Succeed in the Job

CHAPTER IV

SUMMARY

The intention of this study was to give guidance personnel an indication of possible occupations for mentally handicapped persons and to show the competencies needed to succeed on the job. Because of their limited abilities, these handicapped people will need the assistance of more capable people in helping them to direct their vocational activities. By giving the mentally handicapped person an opportunity to work he becomes less of a burden on the community.

The author set out to (1) find some of the jobs available to mentally retarded persons; (2) analyze these jobs with respect to (a) mental abilities, and (b) requirements of the jobs; (3) find the competencies needed for these jobs; and (4) present the material in such a way as to help guidance personnel.

The major objective of the study was to construct fundamental tables for use by persons working with vocational placement of the mentally retarded. Careful analysis and selection of job titles from the Dictionary of Occupational Titles and job descriptions from the fourteen volumes of Job Descriptions was the approach used in

forming the tables. Comparisons were made with other studies of occupations which listed jobs and mental ages. In this manner the approximate mental ages to be used as guides in personnel selection were determined. The job competencies required for success were taken from a recent study of occupations by the United States Department of Labor.

The material in Chapter II is divided into three broad areas. Section I deals with the general characteristics of the mentally retarded. It was shown in this section that much of the current terminology concerning retardation is not clear. It was also shown that authorities believe that there are a variety of causes both genetical and environmental. In this context, however, these youth are influenced by the same environmental factors that affect normal youth.

The second section deals with the role of the community in providing adequate facilities for the diagnosis and the training of mentally handicapped persons. The schools have absorbed much of this community responsibility and one of the greatest contributions they can provide is opportunity for adequate social development. The latter has seemed to be the major factor in vocational success.

The third section reports on the literature devoted to employment of the mentally handicapped. It lists types

of jobs held by Special Class graduates. It is evident from these studies that the mentally handicapped person can fill a valuable role in the nation's working population.

Chapter III describes the code used in the tables and defines the terms used in the code. This unit also lists possible jobs and the competencies needed in a particular job. This information has been presented in the form of tables. These tables are GUIDES to facilitate occupational planning and should not be used as absolute criteria for job placement. Only after extensive empirical study of the value of such an instrument in actual guidance situations can its true functional value be determined.

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